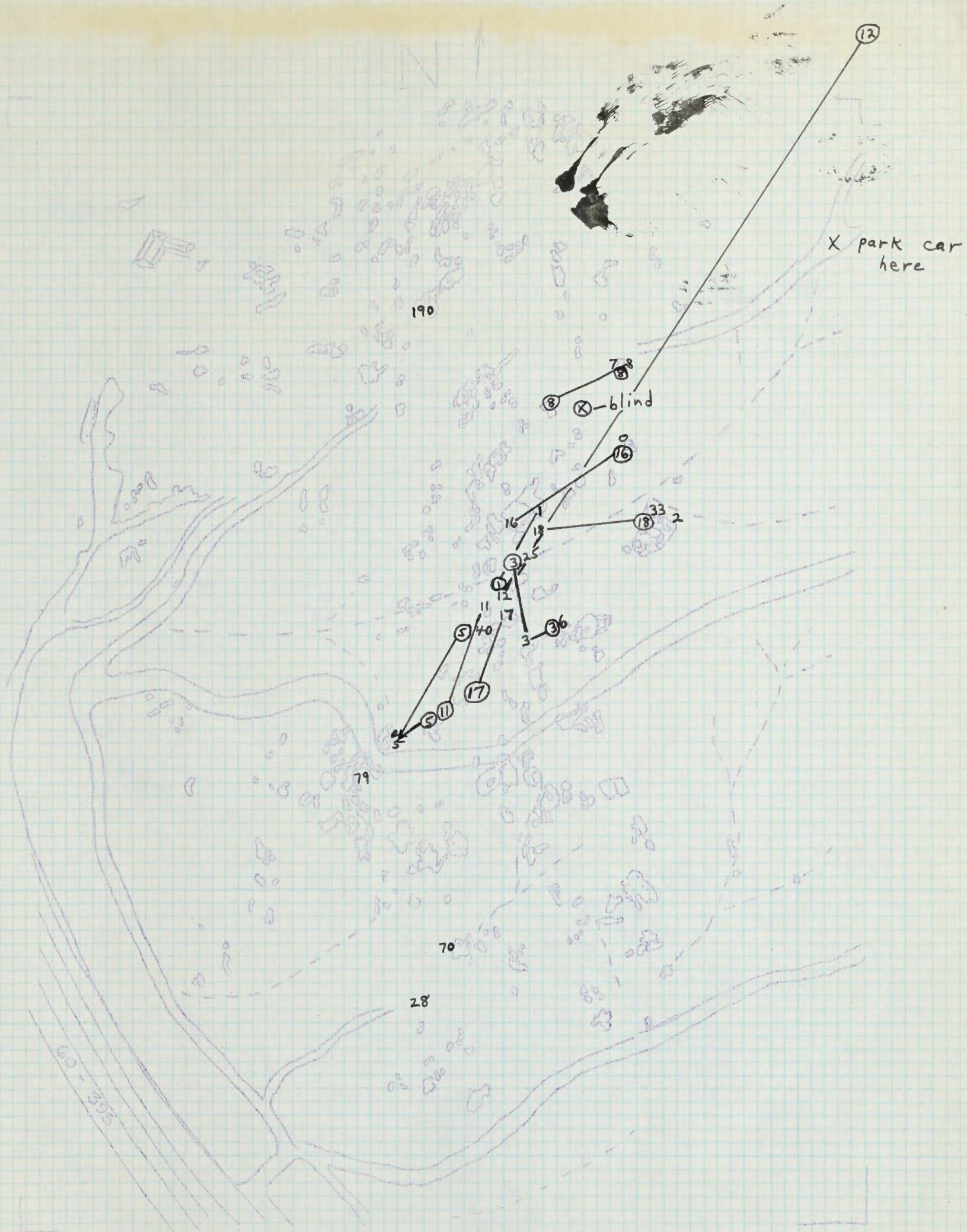


Capture Locations, 1958 (Sceloporus orcutti)



AREA A

(29) = recapture site, 1961.

Capture Locations, 1958 (Sceloporus orcutti)



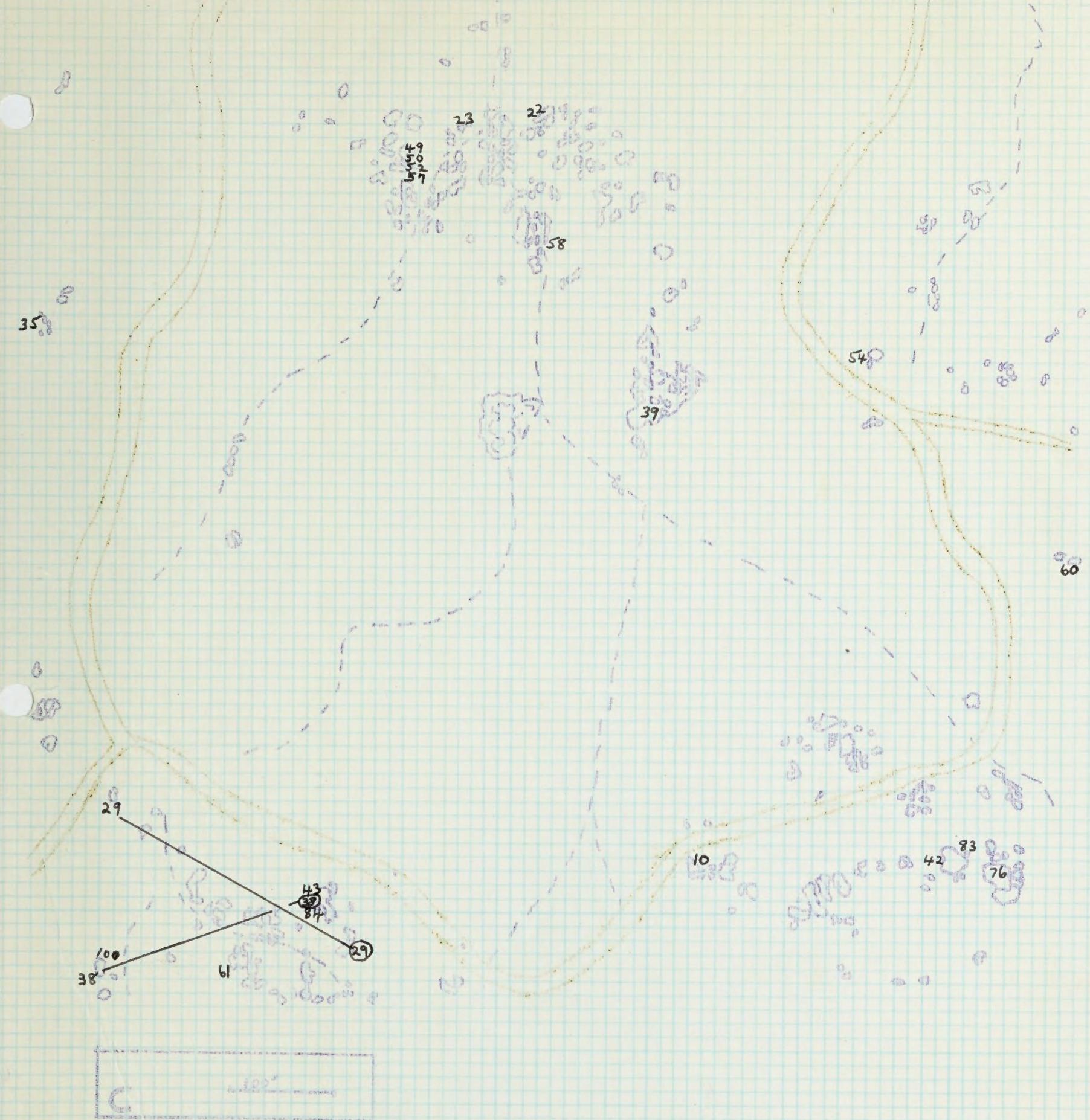
(29) = recapture site, 1961.

AREA B

Digitized by the Internet Archive
in 2017 with funding from
CLIR

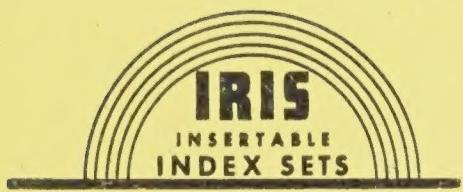
<https://archive.org/details/reptilecaptureda00mayh>

Capture Locations, 1958 (Sceloporus orcutti)

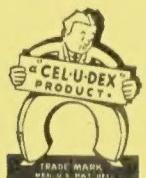


⑨ = recapture site, 1961.

Phenomenic
McCall



I.R. - 13 8½ x 11



Phrynosoma
m. calli

PHRYNOSOMA M'CALLI
 (MARCH, 1961)

TIME	ON SURFACE	HEAD OUT	BENEATH SURFACE
0700			
0730	///	/	///
0800		/	/
0830		/	/
0900	///		/
0930			
1000		/	
1030			
1100			
1130			
1200			
1230			
1300		/	
1330			
1400	/		
1430			
1500			
1530			
1600			
1630			/
1700		/	/
1730			
1800			
1830			
1900			
1930			
2000			
2030			
2100			
2130			
2335	1		

PHRYNOSOMA M'CALLI
 (FEBRUARY, 1961)

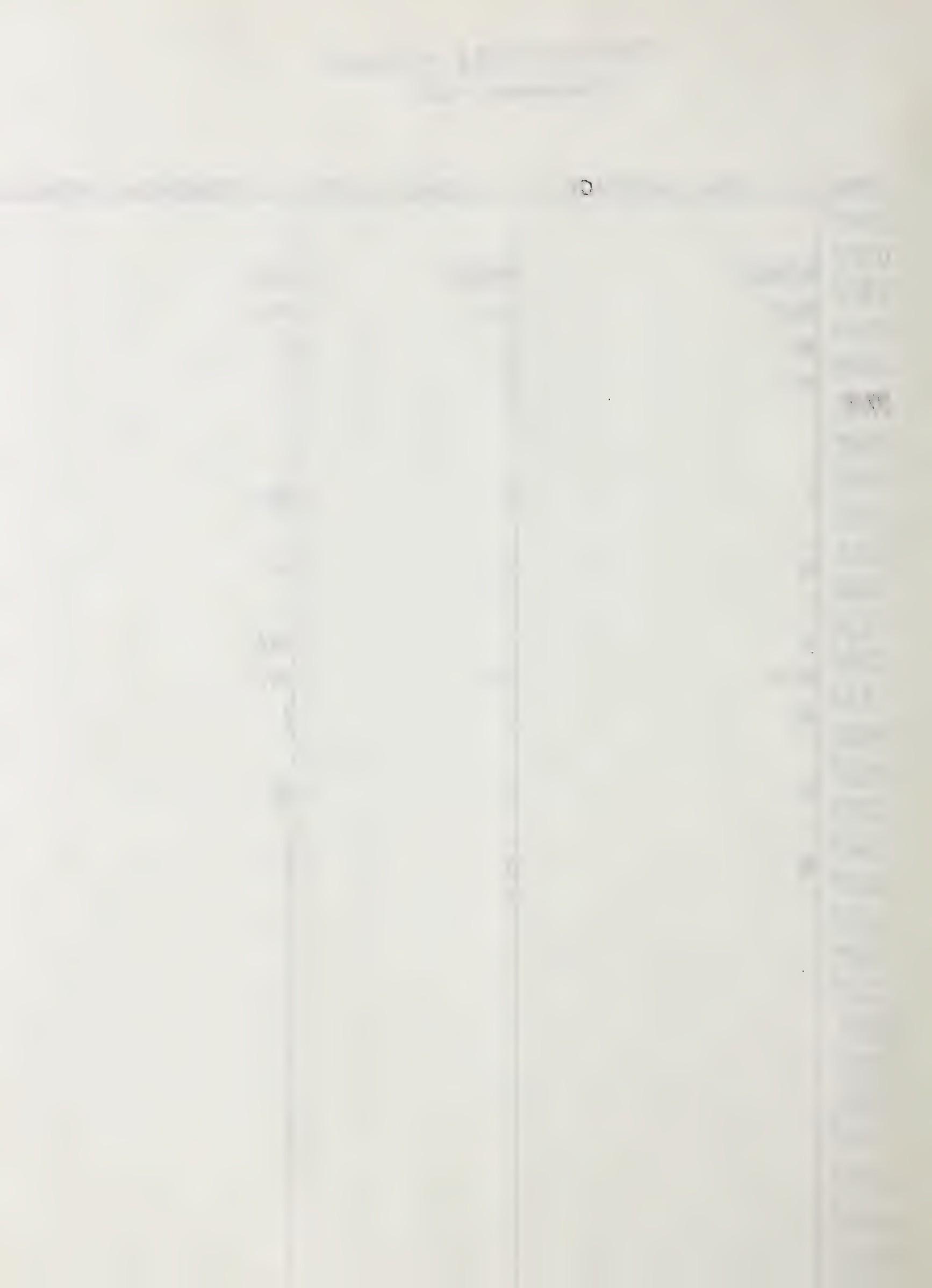
TIME	ON SURFACE	HEAD OUT	BENEATH SURFACE
0700			
0730			
0800			
0830			
0900			
0930			
1000			
1030			
1100			
1130			
1200			
1230			
1300			
1330			
1400			
1430		-	
1500		-	
1530		-	
1600		-	
1630		-	
1700		-	
1730			
1800			
1830			
1900			
1930			
2000			
2030		-	
2100			
2130			
2200			

PHRYNOZOUMA M'CALLI
 (JANUARY, 1961)

TIME	ON SURFACE	HEAD OUT	BENEATH SURFACE
0700			
0730		"	"
0800		"	"
0830		"	
0900	"	"	"
0930	"	"	"
1000			
1030		"	"
1100	"	"	"
1130			"
1200			
1230			"
1300		"	"
1330		"	"
1400			
1430	"		"
1500	"		"
1530			
1600	"		"
1630	"		
1700	"		
1730			
1800			
1830			
1900			
1930			
2000			
2030			
2100			
2130			

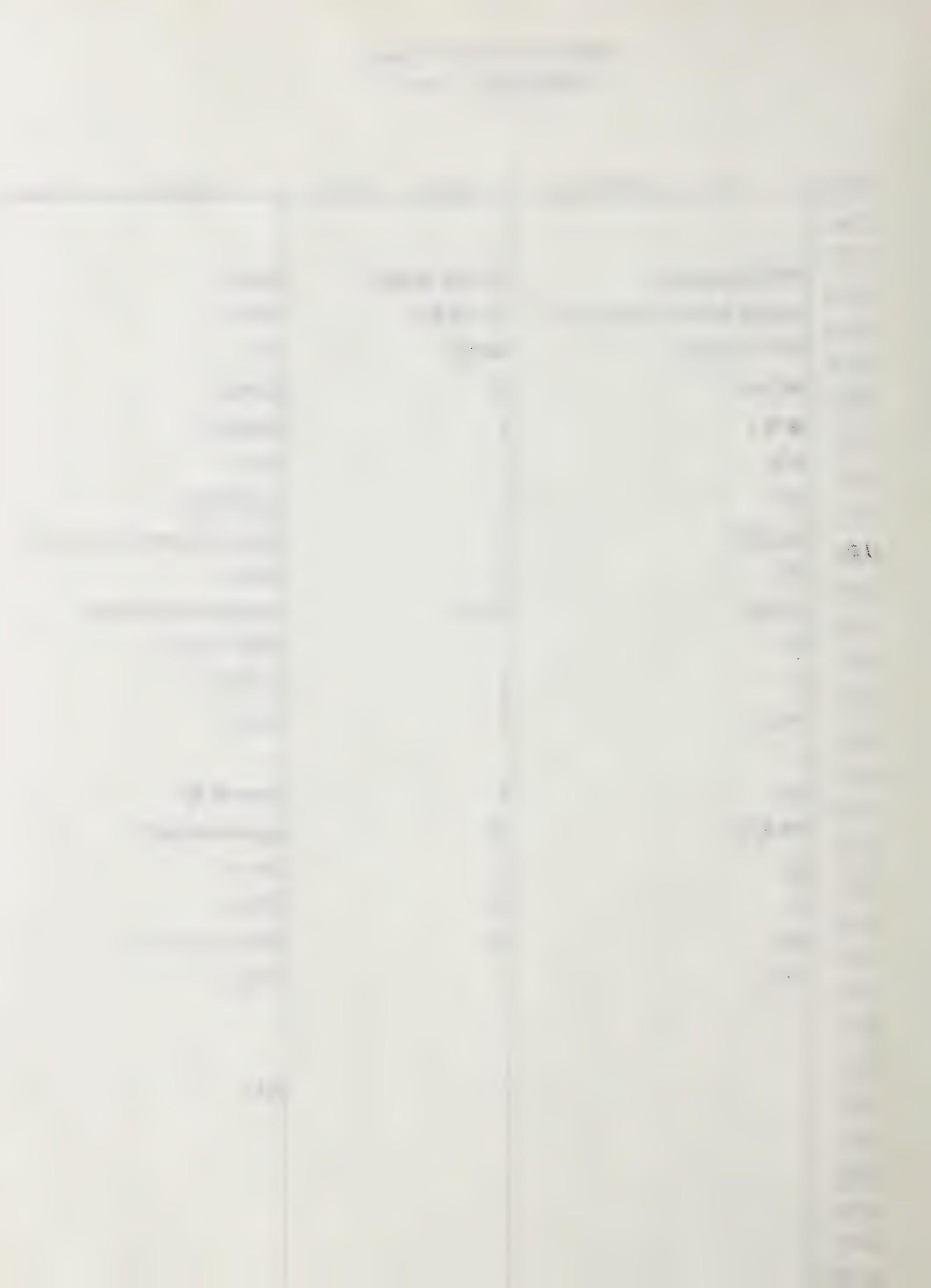
PHRYNOSOMA M'CALLI
 (DECEMBER, 1960)

TIME	ON SURFACE	HEAD OUT	BENEATH SURFACE
0700			
0730			
0800			
0830			
0900			
0930			
1000			
1030	"	"	
1100	"	"	
1130			
1200			
1230	"		
1300	"		
1330			
1400			
1430	"		
1500	"		
1530			
1600			
1630			
1700			
1730			
1800			
1830			
1900			
1930			
2000			
2030			
2100			
2130			



PHRYNOSOMA M'CALLI
 (NOVEMBER, 1960)

TIME	ON SURFACE	HEAD OUT	BENEATH SURFACE
0700			
0730			
0800			
0830			
0900			
0930		/	
1000		/	
1030			
1100		/	
1130		/	
1200		/	
1230			
1300			
1330		/	
1400		/	
1430		/	
1500		/	
1530			
1600		/	
1630		/	
1700		/	
1730		/	
1800			
1830			
1900			
1930			
2000			
2030			
2100			
2130			



PHRYNOSOMA McCALLI

(September, 1960)
(October, 1960)

Time	ON SURFACE	HEAD OUT	BENEATH SURFACE
0700		"	"
0730			
0800			
0830			
0900		"	"
0930		"	
1000			
1030			
1100			"
1130			
1200			
1230			"
1300			
1330		"	"
1400			
1430			
1500			
1530		"	"
1600			
1630			
1700		"	
1730			
1800			
1830			
1900			
1930			"
2000			
2030			
2100			
2130		"	
2200		"	

Phrynosoma m'calli Laboratory Summary

Activity

1639 observations during 360 periods on 11 lizards (9-Glamis; 2 P. Spgs.).

212 substrate temps. with Schultheis thermometer during same period, measured beside lizards.

With Brown Recorder

35 lizards measured (6 replications) during 14 days (34-Glamis; 1-
[ad ♂] Palm Spgs.)

27 Adults (14 ♂; 13 ♀)

5 Immatures (1 ♂; 4 ♀)

3 Juveniles (1 ♂; 2 ♀)

857 substrate temps.

858 cloacal temps.

Time Held Before Recording (weeks)

	<u>< 1</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>12</u>
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(P.S. ad ♂ held < 1 week)

Ad ♂	9		3		2	
Ad ♀	8		1	1	3	
Im ♂		1				
Im ♀	1			2		1
Juv ♂	1					
Juv ♀	1	1				

27.0°C.	31.0°C.	43.0°C.	43.0°C.	38.0°C.	38.0°C.	42.5°C.	41.0°C.	32.0°C.	
G	G	I	GG I	S	S	G	S	S	
4-G 1-P 2-I	5-G 1-P 1-I	P	G	G	G	G	G	G	
26.5°	31.5°	45.5°	51.0	38.5°	41.0	40.5	31.0	27.5°	
Date Time	9/28/60 1620	Date Time	9/28/60 1945	Date Time	9/28/60 2345	Date Time	9/28/60 lights on all nite	Date Time	9/29/60 0800
(Both P's out at 2000)									
26.5°	32.0	41.0	51.0	39.0	41.0	41.0	31.5	28.0	
G	G	G	G	G	GG	G	G	G	
25.5°	31.5°	47.0	49.0	38.5°	41.0	40.5	31.0	27.0	
G	G	G	G	G	G	G	G	G	

I = Uma inornata
S = Sceloporus occidentalis
P = Phrynosoma mcallii (Palm Springs)

G = Phrynosoma mcallii (Glamis)
D = Dipsosaurus dorsalis

(G) = Animal's position barely discernable (Began 1230, 10/5/60)
(G) = Only head exposed
(G) = Animal's position discernable

(2)	Time 1130	Time 1630	Time 0810 ← lights on	Time 1140
26.0	32.0	48.0	49.0	41.0
38.5	38.5	50.0	51.0	40.5
27.5	33.0	40.0	43.0	42.5
G	G	P	G	G
27.5	33.0	50.0	51.0	40.5
G	G	P	I	I
21.5	22.0	22.0	22.0	22.0
G	G	G	G	G
25.0	29.0	45.5	44.5	32.0
G	G	G	G	G
27.5	39.5	31.5	30.5	33.0
G	G	G	G	G
27.5	39.5	31.5	36.0	P G
G	G	G	I	I P

21.5
22.0

At 0930 on 10/3/60, I Diplosaurus dorsalis, 3 Uma inornata added to cage III.

	Date 10/3/60 Time 1655	Date 10/4/60 Time 0800	(lights on) at 0810	Date 10/4/60 Time 0820	Date 10/4/60 Time 1130
30.0	24.5 29.0 39.5 50.0 30.0 26.0	20.5 21.0 21.0 21.0 21.0 21.0	21.0 22.0 22.0 27.5 28.0 23.0	21.0 22.0 22.0 24.0 26.0 25.0	24.0 27.5 40.0 47.0 29.0 25.0
35.5	G G I P G G	I G P G G G	I G G G	I G G G G	G G G
35.5	30.0 34.5	21.0 21.0 21.0 21.0 21.0 21.0	23.0 24.0 22.0 26.0 26.0 25.0	32.0 32.0 34.5 34.5 34.5 33.5	32.0 32.0 34.5 34.5 34.5 33.5
35.5	S S	D D	I I	I I	D D

5: *Dipsosaurus* changed from III to II at 1130.
6 *Uma inornata* added to III at 1300.

6

10/4/60

10/4/60
1530

Date 10/4/60
Time 1700

Date 10/5/60 Time 0805 (lights on)
0813

24.5	29.0	41.0	49.0	31.0	26.0	31.0	14/5	6
I	D	G	P	G	P	No Light	15/5	1530
G	I	(G)	I	G	I	No Light	16/5	1700
24.5	28.0	42.0	49.0	31.0	26.0	No Light	17/5	0805
I	D	G	P	G	I	No Light	18/5	0824
G	I	(G)	P	G	I	No Light	19/5	0823
24.5	28.5	42.0	50.0	31.0	25.5	No Light	20/5	0822
I	P	G	I	D	G	No Light	21/5	0821
G	P	I	G	I	P	No Light	22/5	0820
21.0	21.0	21.0	21.5	21.0	21.0	No Light	23/5	0819
I	G	(G)	I	G	I	No Light	24/5	0818
G	P	(G)	P	G	G	No Light	25/5	0817
21.0	21.0	21.0	21.5	21.0	21.0	No Light	26/5	0816
I	G	(G)	P	G	I	No Light	27/5	0815
G	P	(G)	G	I	G	No Light	28/5	0814
21.0	21.0	21.0	21.5	21.0	21.0	No Light	29/5	0813
I	G	(G)	P	G	I	No Light	30/5	0812
G	P	(G)	G	I	G	No Light	31/5	0811
21.0	21.0	21.0	21.5	21.0	21.0	No Light	32/5	0810
I	G	(G)	P	G	I	No Light	33/5	0809
G	P	(G)	G	I	G	No Light	34/5	0808
21.0	21.0	21.0	21.5	21.0	21.0	No Light	35/5	0807
I	G	(G)	P	G	I	No Light	36/5	0806
G	P	(G)	G	I	G	No Light	37/5	0805
21.0	21.0	21.0	21.5	21.0	21.0	No Light	38/5	0804
I	G	(G)	P	G	I	No Light	39/5	0803
G	P	(G)	G	I	G	No Light	40/5	0802
21.0	21.0	21.0	21.5	21.0	21.0	No Light	41/5	0801
I	G	(G)	P	G	I	No Light	42/5	0800

out = head out of sand.
out = entire animal out of sand.

Numbers near animal indicate time that animal emerged from

	Date 10/5/60 Time 1230	Date 10/5/60 Time 1300	Date 10/5/60 Time 1330	Date 10/5/60 Time 1400
⑨	35.0 S I 34.0	I G G G P	I S	I I
30.5	30.0 I G G G P	I G G G P	I G G	I I
24.5	28.5 I G G G P	I G G G P	I G G	I I
25.0	29.0 I G G G P	I G G G P	I G G	I I
25.0	29.0 I G G G P	I G G G P	I G G	I I
25.0	29.0 I G G G P	I G G G P	I G G	I I
25.0	29.0 I G G G P	I G G G P	I G G	I I
25.0	29.0 I G G G P	I G G G P	I G G	I I

Began recording ⑥ at 1230 today.

10

Date 10/5/60
Time 1430

Date 10/5/60
Time 1500

Date 10/5/60
Time 1530

Date 10/5/60
Time 1600

Date 10/5/60 Time 1630	Date 10/5/60 Time 1700	Date 10/6/60 (lights 0805) Time 0835
I G D G P G	I G D G G	I G I G G
25.5 30.0 42.0 50.0 50.0	25.5 30.0 41.5 50.0 50.0	21.5 22.0 22.0 22.0 22.0
I G G	D G G	D G I G G
32.0 32.0 32.0 33.0 36.5	32.0 32.0 27.5 33.0 36.5	22.0 22.0 22.0 22.0 22.0
I I I	I I I	I I I I I

All animals given sun bath — 0900 to 0920.

35.0
31.0

Date 10/6/60
Time 1145

Date 10/6/60
Time 1215

Date 10/6/60
Time 1505

Date 10/6/60
Time 1600

4

4

4

v

A scatter plot showing a positive linear trend. The x-axis ranges from 25.0 to 37.0. The y-axis ranges from 35.0 to 50.0. Data points are labeled with letters: G, P, D, G, G, G. Three points are circled with a red circle: G (29.5, 43.0), P (33.0, 39.0), and G (37.0, 39.0).

All but 3 Uma inornata removed from cage III at 1400 today.

23.0

Date 10/10/60
Time 2030 (lights out
since 1700)Date
Time10/11/60
0810(lights on-
0810)Date
Time10/11/60
0950Date
Time10/11/60
1300

23.0

Y

23.5

22.0

24.0

23.5

22.0

23.5

22.5

23.5

G

D

G

21.5
22.0
22.0
22.0
22.0
22.0
22.0

G

D

G

G

I
G

P

S

I

G

G

G

G

G

G

G

G

G

G

G

G

G

G

G

G

G

10/11/60
0810(lights on-
0810)Date
Time10/11/60
0950

S

I

G

G

G

G

G

G

G

G

G

G

G

G

G

G

G

G

G

10/11/60
0950

23.0

Y

I

G

P

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35.5

(15)

Date 10/11/60
Time 1430Date 10/11/60
Time 1700Date 10/11/60
Time 2020
(lights on
since 0810)Date 10/11/60
Time 2130
(lights off at
2020 -
overhead
lights
still
on.)

26.0	30.0	45.0	44.5	30.0	46.0	45.5	31.0	22.5	34.0	38.0	34.0	37.0		
G (I)	G	G	G	D	G	G	G	G	G	G	G	G		
31.0	37.0	27.0	33.0	31.0	34.0	35.0	30.0	26.0	33.0	37.0	35.5			
(G)														

26.0	30.0	45.0	44.5	30.0	46.0	45.5	31.0	22.5	34.0	38.0	34.0	37.0		
G (I)	G	G	G	D	G	G	G	G	G	G	G	G		
31.0	37.0	27.0	33.0	31.0	34.0	35.0	30.0	26.0	33.0	37.0	35.5			
(G)														

25.5	30.0	45.0	44.5	30.0	46.0	45.5	31.0	22.5	34.0	38.0	34.0	37.0		
G (I)	G	G	G	D	G	G	G	G	G	G	G	G		
31.0	37.0	27.0	33.0	31.0	34.0	35.0	30.0	26.0	32.0	36.0	35.0	38.0		
(G)														

24.0	27.0	31.0	26.0	26.0	27.0	24.0	26.0	29.0	26.0	29.0	28.0			
(G)	D	G	D	G	D	G	D	G	D	G	D	G		
32.0	35.0	31.0	25.0	25.0	26.0	32.0	26.0	29.0	26.0	29.0	28.0			
(G)														

Date 10/11/60	Time 2325	Date 10/12/60	Time 0805 (lights on at 0810)	Date 10/12/60	Time 0820	Date 10/12/60
23.5	24.5	22.0	22.5	22.5	22.5	25.0
24.5	24.0	22.0	22.5	23.0	23.0	25.0
24.0	24.5	22.5	22.0	22.5	22.5	24.5
24.5	25.0	23.0	23.5	24.0	24.0	26.0
25.0	25.5	23.5	24.0	24.5	24.5	27.0
25.5	26.0	24.0	24.5	25.0	25.0	28.5
26.0	26.5	24.5	25.0	25.5	25.5	30.0
26.5	27.0	25.0	25.5	26.0	26.0	32.5
27.0	27.5	25.5	26.0	26.5	26.5	34.5
27.5	28.0	26.0	26.5	27.0	27.0	37.0
28.0	28.5	26.5	27.0	27.5	28.0	39.5
28.5	29.0	27.0	27.5	28.0	28.5	42.0
29.0	29.5	27.5	28.0	28.5	29.0	44.0
29.5	30.0	28.0	28.5	29.0	29.5	46.0
30.0	30.5	28.5	29.0	29.5	30.0	48.0
30.5	31.0	29.0	29.5	30.0	30.5	50.0
31.0	31.5	29.5	30.0	30.5	31.0	52.0
31.5	32.0	30.0	30.5	31.0	31.5	54.0
32.0	32.5	30.5	31.0	31.5	32.0	56.0
32.5	33.0	31.0	31.5	32.0	32.5	58.0
33.0	33.5	31.5	32.0	32.5	33.0	60.0
33.5	34.0	32.0	32.5	33.0	33.5	62.0
34.0	34.5	32.5	33.0	33.5	34.0	64.0
34.5	35.0	33.0	33.5	34.0	34.5	66.0
35.0	35.5	33.5	34.0	34.5	35.0	68.0
35.5	36.0	34.0	34.5	35.0	35.5	70.0
36.0	36.5	34.5	35.0	35.5	36.0	72.0
36.5	37.0	35.0	35.5	36.0	36.5	74.0
37.0	37.5	35.5	36.0	36.5	37.0	76.0
37.5	38.0	36.0	36.5	37.0	37.5	78.0
38.0	38.5	36.5	37.0	37.5	38.0	80.0
38.5	39.0	37.0	37.5	38.0	38.5	82.0
39.0	39.5	37.5	38.0	38.5	39.0	84.0
39.5	40.0	38.0	38.5	39.0	39.5	86.0
40.0	40.5	38.5	39.0	39.5	40.0	88.0
40.5	41.0	39.0	39.5	40.0	40.5	90.0
41.0	41.5	39.5	40.0	40.5	41.0	92.0
41.5	42.0	40.0	40.5	41.0	41.5	94.0
42.0	42.5	40.5	41.0	41.5	42.0	96.0
42.5	43.0	41.0	41.5	42.0	42.5	98.0
43.0	43.5	41.5	42.0	42.5	43.0	100.0
43.5	44.0	42.0	42.5	43.0	43.5	102.0
44.0	44.5	42.5	43.0	43.5	44.0	104.0
44.5	45.0	43.0	43.5	44.0	44.5	106.0
45.0	45.5	43.5	44.0	44.5	45.0	108.0
45.5	46.0	44.0	44.5	45.0	45.5	110.0
46.0	46.5	44.5	45.0	45.5	46.0	112.0
46.5	47.0	45.0	45.5	46.0	46.5	114.0
47.0	47.5	45.5	46.0	46.5	47.0	116.0
47.5	48.0	46.0	46.5	47.0	47.5	118.0
48.0	48.5	46.5	47.0	47.5	48.0	120.0
48.5	49.0	47.0	47.5	48.0	48.5	122.0
49.0	49.5	47.5	48.0	48.5	49.0	124.0
49.5	50.0	48.0	48.5	49.0	49.5	126.0
50.0	50.5	48.5	49.0	49.5	50.0	128.0
50.5	51.0	49.0	49.5	50.0	50.5	130.0
51.0	51.5	49.5	50.0	50.5	51.0	132.0
51.5	52.0	50.0	50.5	51.0	51.5	134.0
52.0	52.5	50.5	51.0	51.5	52.0	136.0
52.5	53.0	51.0	51.5	52.0	52.5	138.0
53.0	53.5	51.5	52.0	52.5	53.0	140.0
53.5	54.0	52.0	52.5	53.0	53.5	142.0
54.0	54.5	52.5	53.0	53.5	54.0	144.0
54.5	55.0	53.0	53.5	54.0	54.5	146.0
55.0	55.5	53.5	54.0	54.5	55.0	148.0
55.5	56.0	54.0	54.5	55.0	55.5	150.0
56.0	56.5	54.5	55.0	55.5	56.0	152.0
56.5	57.0	55.0	55.5	56.0	56.5	154.0
57.0	57.5	55.5	56.0	56.5	57.0	156.0
57.5	58.0	56.0	56.5	57.0	57.5	158.0
58.0	58.5	56.5	57.0	57.5	58.0	160.0
58.5	59.0	57.0	57.5	58.0	58.5	162.0
59.0	59.5	57.5	58.0	58.5	59.0	164.0
59.5	60.0	58.0	58.5	59.0	59.5	166.0
60.0	60.5	58.5	59.0	59.5	60.0	168.0
60.5	61.0	59.0	59.5	60.0	60.5	170.0
61.0	61.5	59.5	60.0	60.5	61.0	172.0
61.5	62.0	60.0	60.5	61.0	61.5	174.0
62.0	62.5	60.5	61.0	61.5	62.0	176.0
62.5	63.0	61.0	61.5	62.0	62.5	178.0
63.0	63.5	61.5	62.0	62.5	63.0	180.0
63.5	64.0	62.0	62.5	63.0	63.5	182.0
64.0	64.5	62.5	63.0	63.5	64.0	184.0
64.5	65.0	63.0	63.5	64.0	64.5	186.0
65.0	65.5	63.5	64.0	64.5	65.0	188.0
65.5	66.0	64.0	64.5	65.0	65.5	190.0
66.0	66.5	64.5	65.0	65.5	66.0	192.0
66.5	67.0	65.0	65.5	66.0	66.5	194.0
67.0	67.5	65.5	66.0	66.5	67.0	196.0
67.5	68.0	66.0	66.5	67.0	67.5	198.0
68.0	68.5	66.5	67.0	67.5	68.0	200.0
68.5	69.0	67.0	67.5	68.0	68.5	202.0
69.0	69.5	67.5	68.0	68.5	69.0	204.0
69.5	70.0	68.0	68.5	69.0	69.5	206.0
70.0	70.5	68.5	69.0	69.5	70.0	208.0
70.5	71.0	69.0	69.5	70.0	70.5	210.0
71.0	71.5	69.5	70.0	70.5	71.0	212.0
71.5	72.0	70.0	70.5	71.0	71.5	214.0
72.0	72.5	70.5	71.0	71.5	72.0	216.0
72.5	73.0	71.0	71.5	72.0	72.5	218.0
73.0	73.5	71.5	72.0	72.5	73.0	220.0
73.5	74.0	72.0	72.5	73.0	73.5	222.0
74.0	74.5	72.5	73.0	73.5	74.0	224.0
74.5	75.0	73.0	73.5	74.0	74.5	226.0
75.0	75.5	73.5	74.0	74.5	75.0	228.0
75.5	76.0	74.0	74.5	75.0	75.5	230.0
76.0	76.5	74.5	75.0	75.5	76.0	232.0
76.5	77.0	75.0	75.5	76.0	76.5	234.0
77.0	77.5	75.5	76.0	76.5	77.0	236.0
77.5	78.0	76.0	76.5	77.0	77.5	238.0
78.0	78.5	76.5	77.0	77.5	78.0	240.0
78.5	79.0	77.0	77.5	78.0	78.5	242.0
79.0	79.5	77.5	78.0	78.5	79.0	244.0
79.5	80.0	78.0	78.5	79.0	79.5	246.0
80.0	80.5	78.5	79.0	79.5	80.0	248.0
80.5	81.0	79.0	79.5	80.0	80.5	250.0
81.0	81.5	79.5	80.0	80.5	81.0	252.0
81.5	82.0	80.0	80.5	81.0	81.5	254.0
82.0	82.5	80.5	81.0	81.5	82.0	256.0
82.5	83.0	81.0	81.5	82.0	82.5	258.0
83.0	83.5	81.5	82.0	82.5	83.0	260.0
83.5	84.0	82.0	82.5	83.0	83.5	262.0
84.0	84.5	82.5	83.0	83.5	84.0	264.0
84.5	85.0	83.0	83.5	84.0	84.5	266.0
85.0	85.5	83.5	84.0	84.5	85.0	268.0
85.5	86.0	84.0	84.5	85.0	85.5	270.0
86.0	86.5	84.5	85.0	85.5	86.0	272.0
86.5	87.0	85.0	85.5	86.0	86.5	274.0
87.0	87.5	85.5	86.0	86.5	87.0	276.0
87.5	88.0	86.0	86.5	87.0	87.5	278.0
88.0	88.5	86.5	87.0	87.5	88.0	280.0
88.5	89.0	87.0	87.5	88.0	88.5	282.0
89.0	89.5	87.5	88.0	88.5	89.0	284.0
89.5	90.0	88.0	88.5	89.0	89.5	286.0
90.0	90.5	88.5	89.0	89.5	90.0	288.0
90.5	91.0	89.0	89.5	90.0</td		

Time 0810 (21)

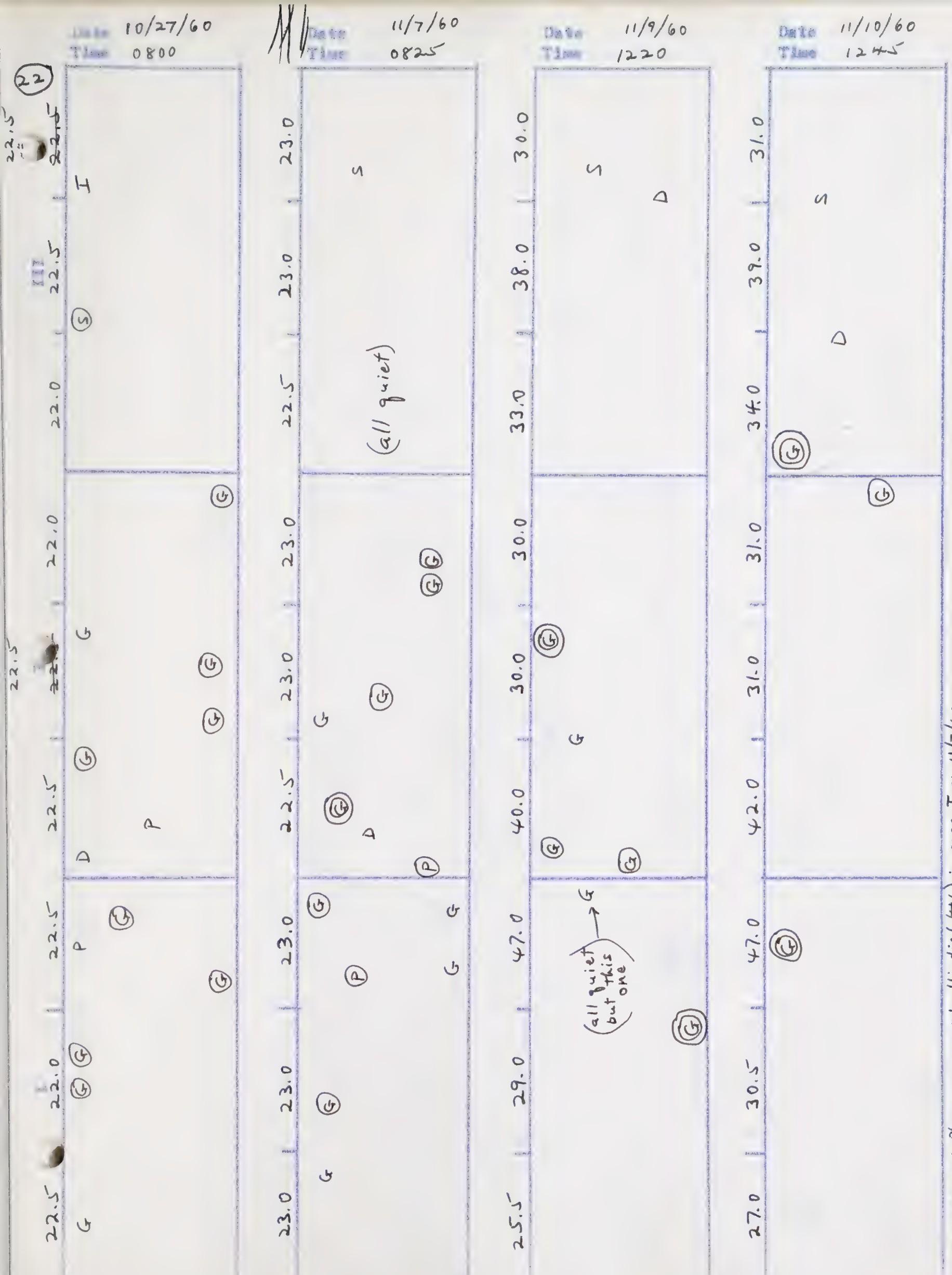
Time 0810

Time 0810

Time 0810

22.0 22.5 22.0 22.5 22.0 22.5 22.0 22.5 22.0 22.5 22.0 22.5 22.0 22.5 22.0 22.5

P G G D I P G G D G I G P G G D G I G P G D I



Phrynosoma mcallii died (#6) in cage I on 11/7/60.
Dipsosaurus dorsalis changed from cage II to cage III on 11/9/60.

22.0 (no lights for 2 days)

22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
P	G	G	G	G	G	P	G
D	I	I	I	I	I	G	G

Graph showing Temperature (T) in degrees Celsius versus Time.

Y-axis: Temperature (T) in degrees Celsius.

X-axis: Time.

Quadrants:

- Quadrant I (Top Right): Contains points 34.5, 34.5, 27.5, 27.0, 25.0.
- Quadrant II (Bottom Right): Contains points 34.5, 34.5, 27.5, 27.0, 25.0.
- Quadrant III (Bottom Left): Contains points 34.5, 34.5, 27.5, 27.0, 25.0.
- Quadrant IV (Top Left): Contains points 34.5, 34.5, 27.5, 27.0, 25.0.

Approximate Data Points:

Time	Temperature (T)
0905	34.5
11/15/60	34.5
27.0	27.0
27.5	27.5
28.0	25.0
28.5	25.0
30.0	25.0
34.5	25.0
34.5	25.0
27.5	25.0
27.0	25.0
25.0	25.0

(21)	Date 11/15/60 Time 1120	26.0 30.0 30.0 48.5 41.0 31.0 49.0 42.0 31.5 32.0 34.0 39.0 31.0	G G (all quiet) G	I S D	31.0 38.5 33.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0	24.5 29.5
(21)	Date 11/15/60 Time 1340	26.0 31.0 49.0 43.0 32.0 32.0 49.0 31.0 31.0 31.0 31.0 31.0 31.0	G G (all quiet) G	I I P	31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0	24.5 29.5
(21)	Date 11/15/60 Time 1525	26.0 31.0 49.0 43.0 32.0 32.0 49.0 31.0 31.0 31.0 31.0 31.0 31.0	G G (several active now)	I S P	31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0	24.5 29.5
(21)	Date 11/15/60 Time 1645	26.0 31.0 49.0 43.0 32.0 32.0 49.0 31.0 31.0 31.0 31.0 31.0 31.0	G G (4 ^{ma} active, all others quiet)	I S P	31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0 31.0	24.5 29.5

222.5

Date 11-16-60 (lights on-
Time 0805 0805)

11/16/60
0830

Date 11/16/60
Time 0900

Date 11/16/60
Time 0930



		Date 11/16/60 Time 1400	Date 11/16/60 Time 1430	Date 11/16/60 Time 1500	Date 11/16/60 Time 1530
31.0	(3-1)				
32.2					
26.5	30.5	42.0	45.0	32.2	32.2
P	G	G	G	G	G
(G)	(G)	(G)	(G)	(G)	(G)
G	P	G	G	G	G
(both active)	(both active)	(all quiet)	(most are active)	I ↘ (active)	I
30.5	31.0	42.0	45.0	32.5	32.5
G	G	G	G	G	G
(G)	(G)	(G)	(G)	(G)	(G)
27.0	31.0	42.5	45.5	33.0	33.0
P	(quiet)	G	G	G	G
(G)	(G)	(G)	(G)	(G)	(G)
27.0	31.0	42.5	46.0	33.0	33.0
G	G	G	P	G	G
(G)	(G)	(G)	(quiet)	(active)	(I)

Date	11/16/60	Date	11/16/60	Date	11/16/60	Date	11/16/60
Time	1600	Time	1630	Time	1700	Time	1720
33.0	37.2	31.0	42.5	35.0	40.3	35.0	39.0
46.0	46.0	46.0	40.5	35.0	40.5	35.0	32.0
(all quiet)	(all quiet)	(all quiet)	(all active)	(all active)	(all active)	(all active)	(lights out-1700)
G	G	G	I	I	I	I	
27.0	31.0	42.5	46.0	33.0	33.0	35.0	
46.0	46.0	46.0	46.0	33.0	33.0	41.0	
(G)	(G)	(active) G	(active) G	(G)	(G)	(all active)	
G	G	P	P	G	G	I	
27.0	31.0	42.5	46.0	33.0	33.0	35.0	
46.0	46.0	46.0	46.0	33.0	33.0	41.0	
(G)	(G)	(active) G	(active) G	(G)	(G)	(all active)	
G	G	P	P	G	G	I	
26.0	30.0	35.0	41.5	31.0	30.0	32.0	
35.0	35.0	35.0	35.0	30.0	30.0	35.0	
(G)	(G)	(G)	(G)	(G)	(G)	(G)	
G	G	G	G	G	G	G	
27.0	31.0	42.5	46.0	33.0	33.0	35.0	
46.0	46.0	46.0	46.0	33.0	33.0	41.0	
(G)	(G)	(active) G	(active) G	(G)	(G)	(all active)	
G	G	P	P	G	G	I	
26.0	30.0	35.0	41.5	31.0	30.0	32.0	
35.0	35.0	35.0	35.0	30.0	30.0	35.0	
(G)	(G)	(G)	(G)	(G)	(G)	(G)	
G	G	G	G	G	G	G	

23.0 ✓

Date 11/17/60
Time 0805

Date 11/17/60
TIME 0830

Date 11/17/60
Time 1120

Date 11/17/60
Time 1245

23.0	23.0	23.0	23.0	23.0	23.0	23.0
G	P	G				G
G						G

24.0	25.0	32.5	31.0	26.0	26.5	27.0
G	G	G	P	I	I	I
(all active)						
G	G	G	P	G	G	G

Date 11/17/60 Time 1500	37.5 33.0 31.5 27.0	42.0 47.0 33.5 27.5	42.0 47.5 33.5 27.5	33.0 36.0 41.0 37.0
(G) G G G	(active)	(quiet)	(quiet)	(quiet)
Date 11/17/60 Time 1535	33.0 36.0 41.0 37.0	33.0 36.0 41.0 37.0	33.0 36.0 41.0 37.0	33.0 36.0 41.0 37.0
(G) G G G	(quiet)	(all quiet)	(all quiet)	(all quiet)
Date 11/18/60 Time 0805 (lights on)	31.5 34.0 34.0 37.0	31.5 34.0 34.0 37.0	31.5 34.0 34.0 37.0	31.5 34.0 34.0 37.0
(G) G P G	(quiet)	(quiet)	(quiet)	(quiet)
Date 11/18/60 Time 0925	31.5 34.0 34.0 37.0	31.5 34.0 34.0 37.0	31.5 34.0 34.0 37.0	31.5 34.0 34.0 37.0
(G) G G G	(quiet)	(quiet)	(quiet)	(quiet)

11/18/60
1020

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1962
T. B. M.

7

3

70.0

11/22/60

1700

Phrynosoma m'calli

11/23/60

0845-

53.0

35.5

P (quiet)
G

29.5

28.0

27.0



88.0

49.0

35.0

29.5

27.0

23.5

23.0

23.0

23.0

23.8

23.4

23.0

23.4

23.0

23.8

P

G

G

G

G

G

G

G



P

23.5

24.0

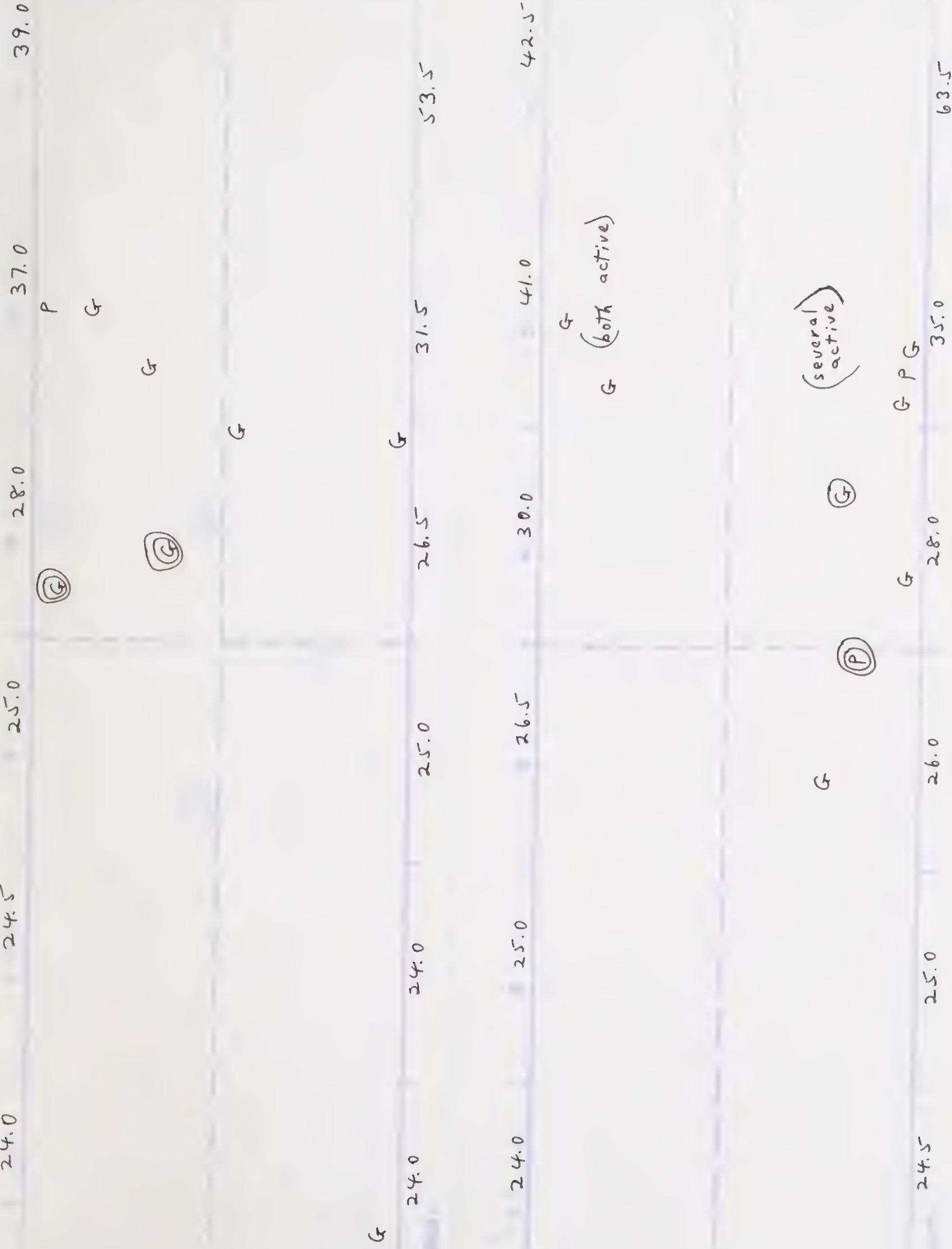
23.5

23.0

23.5

Lights on at 0815.

4
11/23/60 0845 *Phrynosoma m'calli*
11/23/60 0905



25.0

28.0

47.0

5

11/23/60

1000

Phrynosoma m'calli

11/28/60

G (G) 0810

(G)

(G)

(G)

(P)

(G)
(quiet)

25.5

26.0 27.5 31.0
Light off for previous 4 days. Lights on at 0810.

76.5

41.5

19.0

19.0

18.5

19.0

18.5

(G)

(G)

P

G

(G)

19.0

19.0

19.0

19.0

19.0

6
24.5

26.0

21.5

20.0

19.0

G

G

11/28/60

0825

Phrynosoma m'calli

11/28/60

1200

P G
G

(some are
active)

G G P
G

36.0
21.5
20.0
26.0
31.0
42.0
63.0

19.5

22.5

24.0

19.5

24.0

G G G
P P G
G

G

25.0

23.0

G

42.0
79.0

7
11/28/60 1355 *Phrynosoma m'calli*
11/28/60 1715

65.5°

48.5°

32.0

26.5°

24.5°

23.0

P

G

G

(G)

P

81.0

44.5

31.0

24.0

23.5

26.0

25.0

26.5

32.0

47.0

65.5°

7

(G)

G

26.0

24.5

24.0

40.5

76.0

Lights off at 1710.

08
36.0

29.0

23.5

23.0

22.5

11/28/60

(G)

1900

Phrynosoma m'calli

11/29/60

0830

G (G)

22.0

P

G
G

36.0

31.5°

26.0

23.5

23.0

21.5

Lights off at 1710.

22.0

22.0

22.0

G

P

(G)

(G)

(G)

(G)

P

22.0

22.0

21.5
Lights on at 0830.

22.0

G

9

27.5

29.5

24.0

23.0

23.0

22.0

11/29/60

0840

Phrynosoma m'calli

11/30/60

0800

8

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22.0 Lights on at 0830.

22.0	22.0	22.0	22.0	22.0
22.5	23.0	23.0	23.0	23.0
22.0	22.0	22.0	22.0	22.0
25.0	25.0	25.0	25.0	25.0
39.5	39.5	39.5	39.5	39.5

ck

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22-0

23.0

20

20

• 11

All quiet.

10

11/30/60

0822

Phrynosoma m'calli;
11/30/60

11/30/60

1130

43.5

三·九

25.0

23.5

23.0

22.0

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三

650

24.0 26.0

50.

23.0

29.0

22.5 23.0
Lights on at 0808. All quiet.

27.0

22.5

260

Phrynosoma m'calli
11/30/60

11/30/60

1130

82.0

44:5

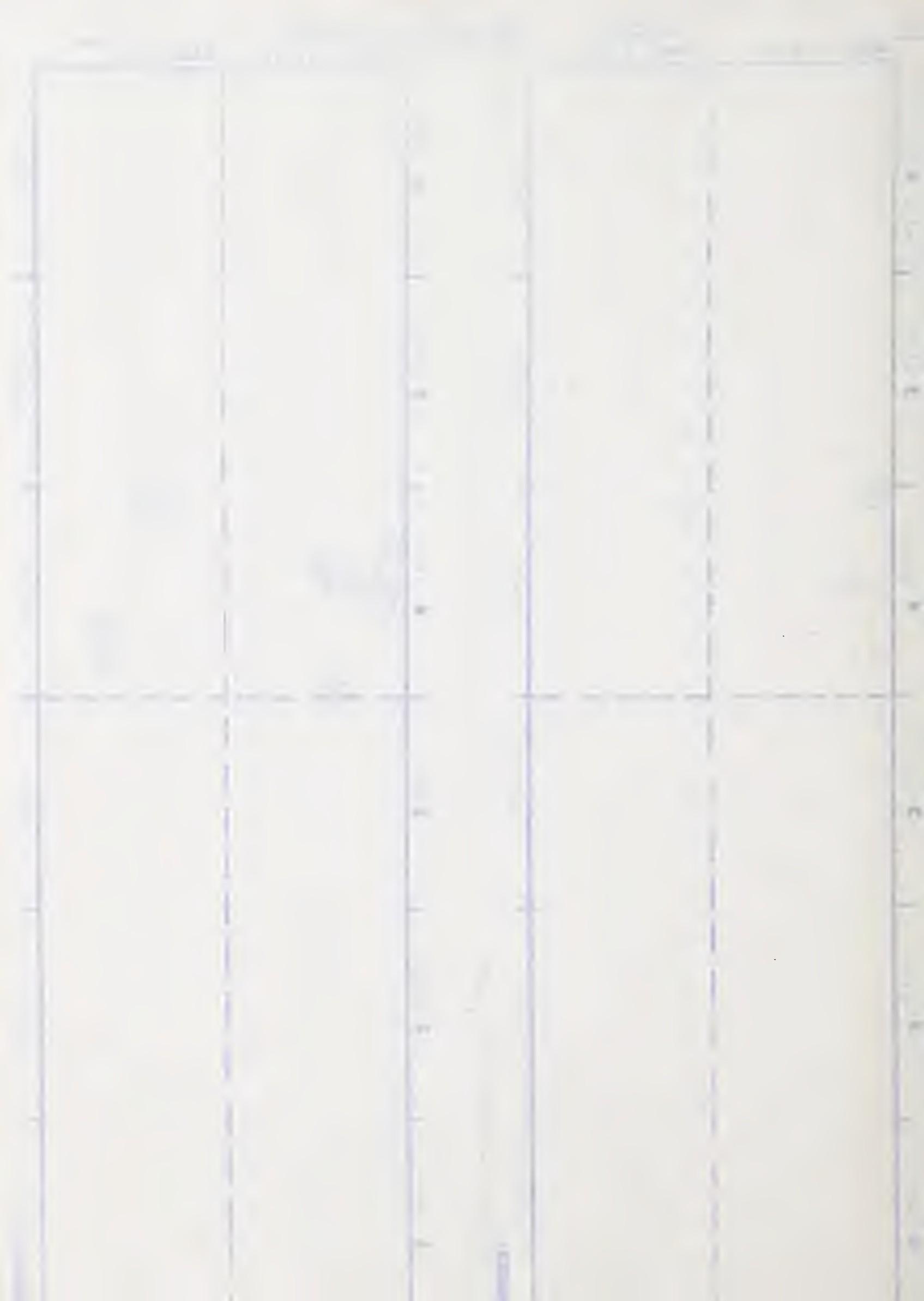
32.5

28.0

26.5

۲۶۰

All quiet.



11

70.0

49.5

34.0

29.0

27.0

26.0

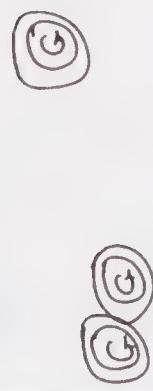
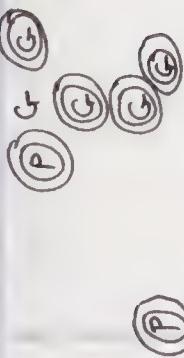
11/30/60

1300

Phrynosoma mcalli

11/30/60

1550



All quiet.
26.0 27.0 28.0 29.0 30.0 31.0

26.0

27.0

28.0

29.0

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280.0

281.0

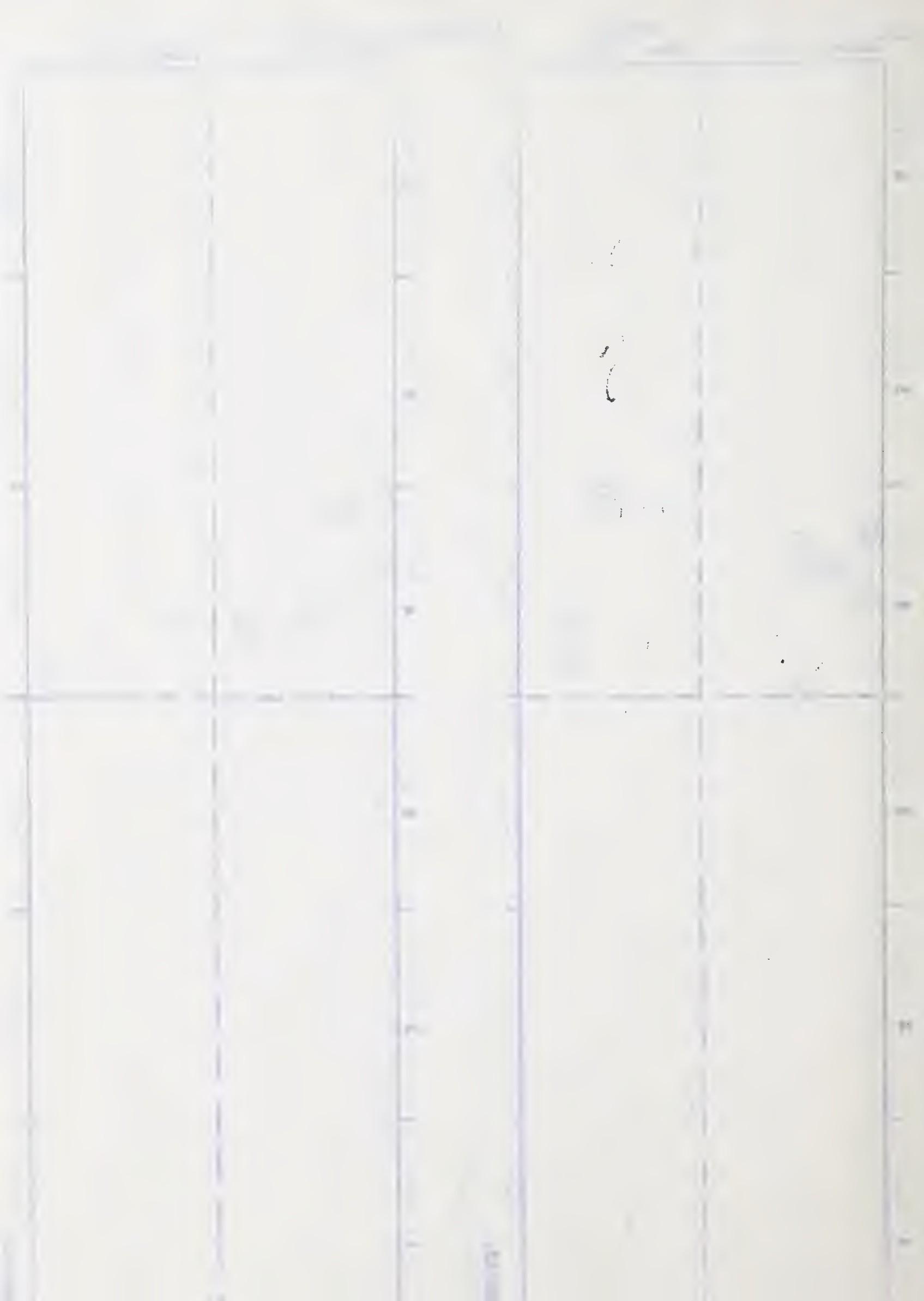
282.0

283.0

284.0

285.0

286.0



12

12/1/60

0815

Phrynosoma m'calli;

12/1/60

0920

22.0

22.0

21.5

21.5

22.0

22.0

G

G

G

G

G

G

22.0

22.0

22.0

22.0

22.0

Phrynosoma m'calli;

22.0

22.0

22.0

22.0

22.0

22.0

G

G

G

G

G

G

G

G

G

m'calli;

12/1/60

0920

43.0

27.5

25.0

23.0

22.5

G (active)

Lights on at 0910. Several are moving about.



13

12/1/60

1110

Phrynosoma m'callii
12/2/60

0808

65.0

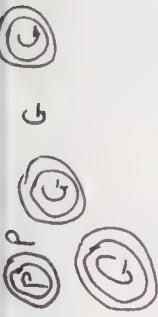
51.0

34.0

28.5

26.0

25.0



All quiet.

25.0

27.0

33.0

74.0

24.0
24.023.5
24.0

24.0

24.0



23.5

24.0

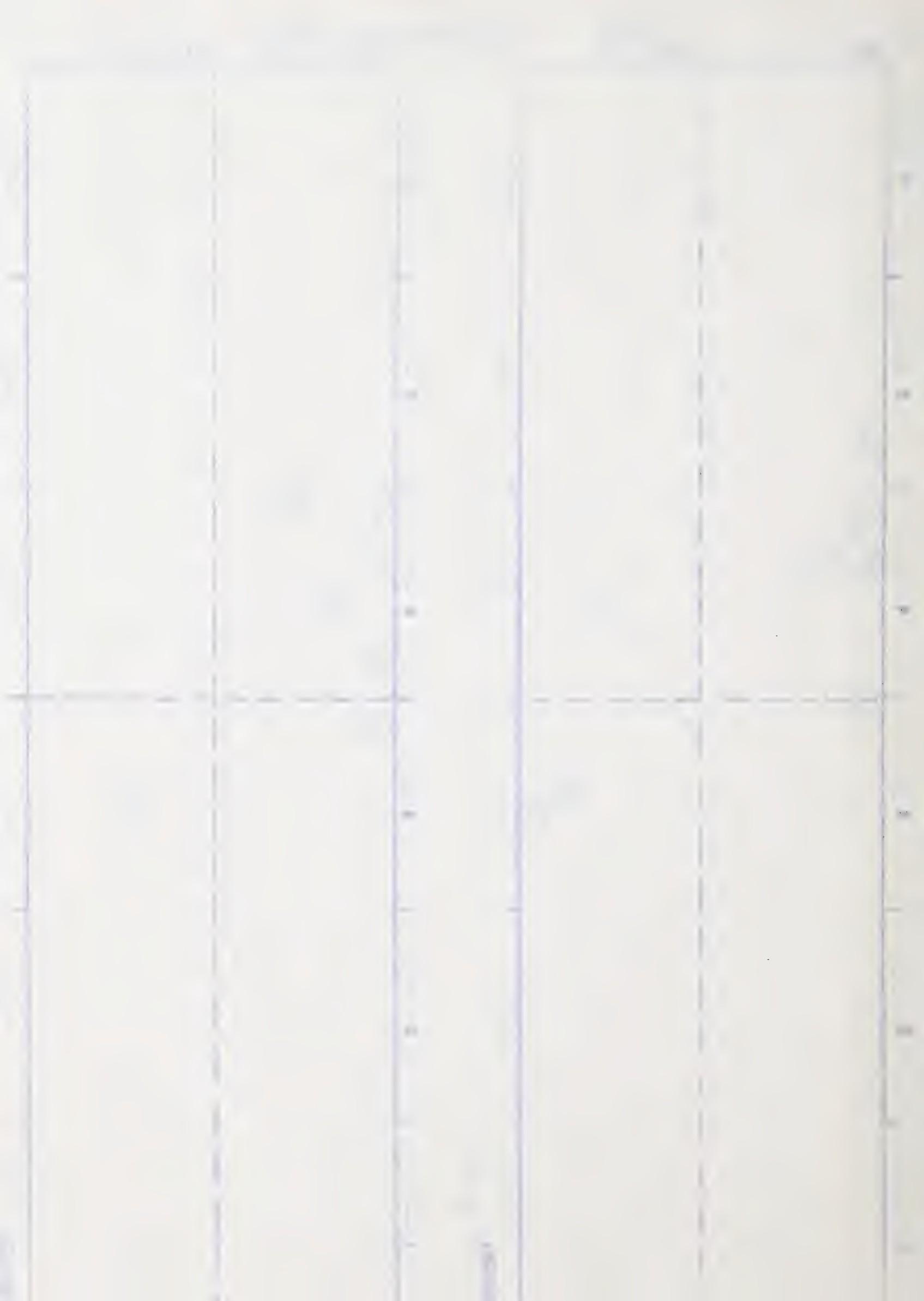
24.0

24.0

24.0

24.0

Lights on at 0820. All quiet.



16

12/6/60

0820

Phrynosoma m'calli
12/6/60

1155

21.0
21.0P -   

21.0

21.5

21.0

G

  
10 white digits

G

P



21.0

21.5

21.0

21.5

21.5

21.5

69.0

29.0
26.0

P 32.6

54.0

 38.0

69.0

G 35.2
G 30.6
G25.6 

25.5

 P 33.0

34.0

74.0

49.0

All quiet.

17
12/6/60 72.0

56.0

29.5
P G G

26.0

25.0

12/6/60

1515-

G

P

(G)

(G)

(G)

25.5

26.0

28.5

36.0

76.5

#8 found dead at hot end of cage at 1650. Now there are 9 animals left.

22.0

22.0

22.0

22.0

22.0

P G G

22.0

Phrynosoma m'calli;
12/7/60

0810

(G)

G

G

(G)

22.0

22.0

22.0

22.0

22.0

All quiet. Lights will not be turned on again for a month or two.

19

12/8/60

0830

Phrynosoma m'calli

12/8/60

1350



G



22.0

22.0

22.0

22.0

22.0

22.0



P G



22.0

22.0

22.0

22.0

22.0

22.0



P

All quiet.

22.0

22.0



P G

22.0

22.0

22.0

22.0



22.0

22.0

22.0

22.0



G

G



22.0

22.0

22.0

22.0



P

22.0
All quiet.

22.0

22.0

22.0

22.0

20

12/15/60

G

0810

22.0

22.0

22.0

22.0

22.0

G

22.0

G

P

Phrynosoma m'calli

1/17/61

1455

22.0

22.0

22.0

22.0

22.0

22.0

None of the animals have been really active since the lights were turned off 12/17/60. They shift positions occasionally, but that is all.

54.5

47.0

36.0

31.0

28.5



37.4

37.8

(Brown)
Sand

59.0

51.5

32.5

37.0

29.5

29.5

30.5

30.5

29.5

29.5

(White)
Sand

21

1/18/61

23.0

23.0

24.0

26.0

29.0

7 5

32.0

12

0835

4

Phrynosoma m'calli;
1/18/61

0945

37.5 34.0 25.5
 #4 has reddish horns & spots on top of head (♂) #7 has purple feet (♀)
 #5 is largest (♂) #12 has creamy back (♀)

44.5 39.0 26.5

12 7 G
36.8°

25.0 24.5

30.0

23.0

23.0

23.0

G
33.0°

51.0 42.5 27.0

31.0

26.0

25.0

22

1/23/61

0835-

Phrynosoma m'calli:

1/23/61

1305-

28.0 27.0 25.5

28.0 27.0 25.5

28.0 27.0 25.5

♂ (adult) (4)
 35.6 35.0
 31.2

12 35.0

40.0	36.0	28.0	26.5	26.0	25.5	25.0	24.0	20.0	28.0	28.0

(7) (G)
 (G) 35.2

(G)
 33.0

56.5

48.5

35.5 31.5

30.0

28.5

23

1/24/61

1130

Phrynosoma m'calli;
1/24/61

1700

27.0

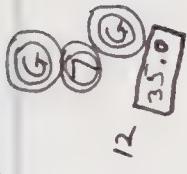
28.0

30.0

32.0

39.0

51.0



28.0

29.0

30.0

33.0

44.0

44.5

28.0

28.5

30.5

33.0

43.0

47.5

55.0

37.2
[]

All were active when lights were turned on at 0830.

29.0

30.0

32.0

35.0

47.0

58.0

24

1/26/61

0810

Phrynosoma m'calli
1/26/61

1015

23.0

23.0

23.0

23.0

23.0

(G)

12

(G)

7

23.0

23.0

23.0

23.0

23.0

23.0 23.0
All quiet. Lights on at 0810.

44.5'

(G) 35.0

30.5'
31.5'

(G) 31.5'

26.0

26.5'

28.0

23.0

(G) 34.8
12 [34.8]

49.5

41.5

31.0

29.0

27.0

26.0

All were active for about an hour after lights were turned on. Only #12 active now.

26

1/31/61

0835

Phrynosoma m'calli;
1/31/61

0915

24.0

24.5

25.0

26.0

28.0

35.0

74
[31.2]
(quiet)12
[25.0]
(active)5
[30.0]
(active)

24.0

25.0

26.0

27.0

27.0

Lights on at 0800.

25.5

26.0

27.0

④ ⑦ ⑪
[34.0] [32.2]

27.5

⑦
[27.8]

24.0

25.0

26.0

④ ⑦ ⑪
[34.0] [32.2]

27.5

⑦
[27.8]

38.5

29.0

27.0

25.5

25.5

26.0

38.5

27.0

25.5

25.5

27

26.5

27.0

29.0

32.0

41.0

54.0

1/31/61

133°

Phrynosoma mcallii

1/31/61

1645

56.5	46.0	33.0	30.0	28.5	27.0	27.0
54.5	42.0	32.0	29.0	27.5	26.5	26.5
57.0	47.0	34.0	30.5	29.0	27.5	27.5
57.0	47.0	34.0	30.5	29.0	27.5	27.5
57.0	47.0	34.0	30.5	29.0	27.5	27.5

emerged at 1655

3 of them are active, 4th one emerged & became active. #5 displayed for #12.

24.0 24.5

29.0 26.0 25.0

347.0

2/1/61

0840

Phrynosoma m'calli; 2/1/61

2/1/61

1045

24.0
24.5

26.0 25.0

29.0

5

37.0 33.0
Lights on at 0800. 3 are active.

51.0	39.0	32.0	29.5	28.5	28.0
51.0	39.0	32.0	29.5	28.5	28.0

二

十一

330

9

None active.

卷之三

29

28.0

28.5

30.0

33.5'

42.5

55.0

2/1/61

1545

Phrynosoma m'calli
2/1/61

1645

29.0

30.0

32.0

30.0

48.0

58.0

3 are slightly active. #5 vibrated and crawled over #4.

5
34.241.0
4
35.0
1237.2
⑦

29.0

30.0

32.0

35.0

48.0

58.0

3 are active.

55.5

33.5

30.0

28.0

43.0

48.0

55.0

36.0
4
5

28.5

28.0

30.0

29.0

36.0
1237.2
⑦37.2
⑦

32.0

32.0

30.0

30.0

33

2/22/61

1705

Phrynosoma m'calli;
2/24/61

0855-

28.0

28.0

30.0

32.0

40.0

5

55.5

(37.4)

⑦

12

28.5

29.5

31.0

34.0

48.0

57.0

21.0

21.0

22.0

22.0

⑤

22.0

1

1

22.0 22.0

⑥

22.0 22.0

21.0

21.0

21.0

Lights on at 0855.

1

4

34

2/24/61

1000

Phrynosoma

m'ca II;
2/25/61

1545

23.0 22.0

25.0

21.5

28.0

4

32.5

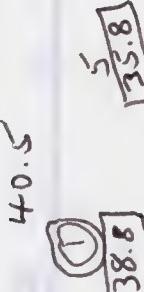
2/24/61

1000

22.0

27.0

4 ← (active) → 12 5

36.0 32.0 56.0 40.5  38.8
35.8

335.8

39-2

35.8
4

34

34. 0

卷之三

48.0

57.5

27.6

All quiet. #7 seems to be getting weaker. It hasn't acted just right since its hind legs and tail were burned by the UV lamp. #4 & 5 became active while I was taking these readings.

35-
56.0 41.0 32.0 29.0 27.0 27.0
1 (active) 2/25/61

5 (active)
2/25/61

12 (active)

1620
7

Phrynosoma m'culli;
2/27/61

0810

48.0 48.0 34.0 30.5 28.0
#5 vibrated rapidly beside #1, who simply buried in the sand. #5 ignored #1 after that.
All but #7 are moving about the cage.
21.0 21.0 21.0 21.0 21.0
⑥

⑥

21.0 21.0 21.0 21.0 21.0
①
#7 found dead this morning.
Lights on at 0810.

①

⑥

36

21.0

21.0

22.0

23.0

26.0

31.0

30.432.231.032.6

34.5

29.0

24.0

22.0

21.0

Phrynosoma m'calli;
2/27/61

1200

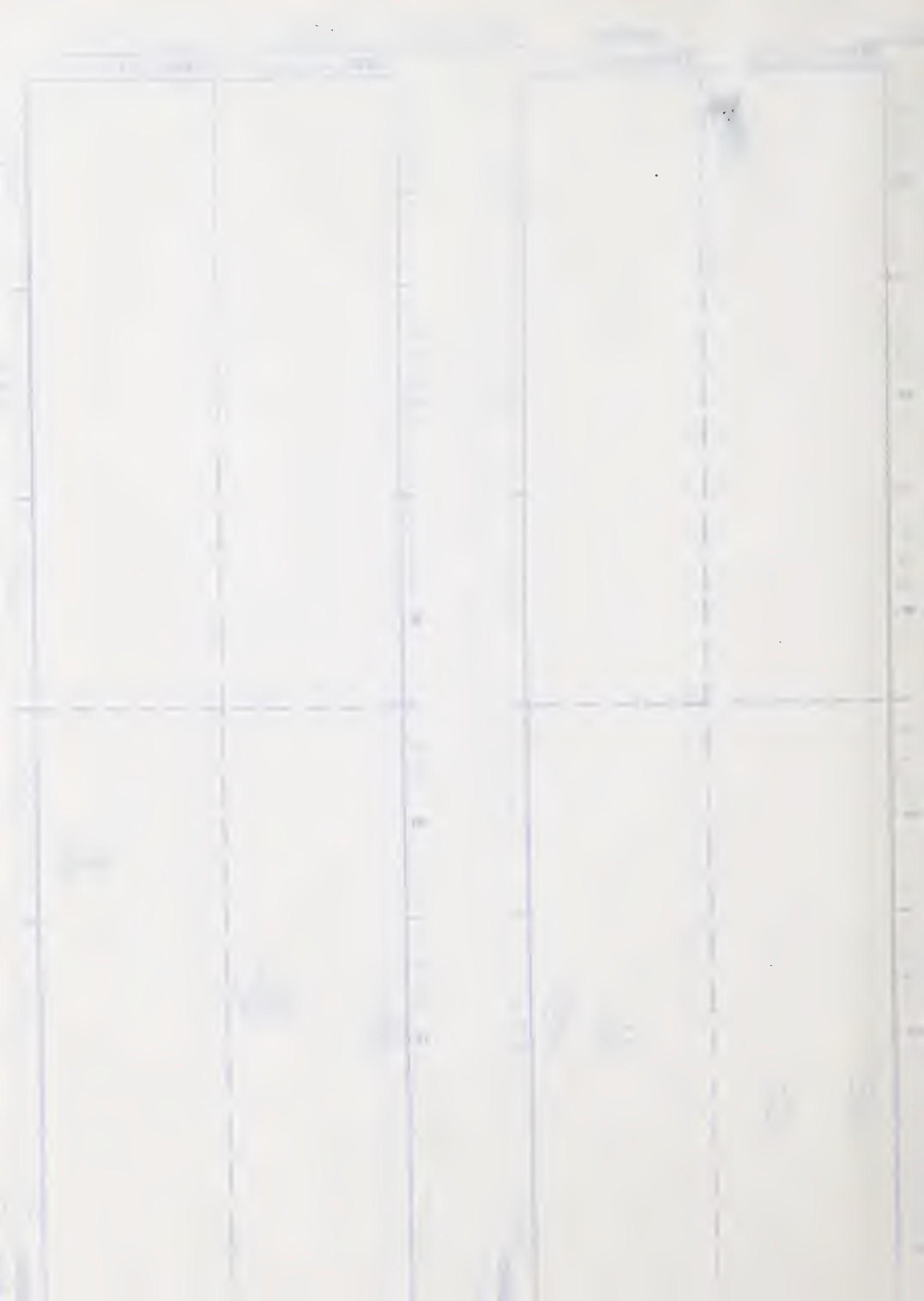
23.0

37.0
35.4
⑤37.2
37.2
①33.6
④53.0
All quiet.

30.0

26.5

24.5
24.0



37

2/27/61

1645

Phrynosoma m'calli
2/27/61

2045

24.0

25.0

26.5

30.0

39.0

54.0

38.2

(active)

38.2

56.0 46.0

#5 vibrated rapidly in front of #4, then walked across the back of #4.
#1 emerged and became active at 1650, #12 became active at 1655.

26.0

31.5

25.0 24.0

24.5

23.0

25.5

23.0

24.5

23.0

①
30.234.0
12

G

G

G

25.0

24.0

23.5

23.0

Overhead lights on at 1935.

Heat lamps on at 2045.

38

23.0

24.0

25.0

27.0

33.0

42.0

2/27/61

2/25

Phrynosoma m'calli
2/27/61

2320

12.5
[34.2]4
[36.2]44.0 36.0 28.0 25.0 24.0 23.0
3 were active.28.0 26.0 24.5 23.0 23.0
⑥ [26.0]

(active)

28.0 27.0 24.5 24.0 23.0
Heat lamps off at 2135. #1 ate a mealworm at 2320.

39

2/28/61

0810

Phrynosoma m'closkyi
2/28/61

0905

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

23.0

23.0

23.0

23.0

23.0

(G)

(1)

Lights on at 0812.

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

22.0

12
34.4
(1)5
36.039.0 33.0 26.5
#4 + 5 were quite active, #12 moved about some.
24.0 26.0 23.0

70

2/28/61

24.0

24.5

26.0

28.5

36.5
 34.6 (G)
 5

51.0

2/28/61

1110

Phrynosoma m'calli:

2/28/61

1120

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

25.0

27.0

29.5

24.0

24.5

26.0

28.5

⑤ (G)
 34.6

51.0

① 33.0
 37.4 12

52.0
 All quiet.

24.0

37.0 31.0 29.0 20.0 14.5
⑤ 34.2

71

2/28/61

1335

Phrynosoma m'calli;
2/28/61

1415

38.0 38.0 38.0 38.0 38.0

① 32.2

12
37.8

* 32.0 31.5 Cage reversed at 1330 so that brown sand* nearest the door and white sand nearest file cabinet.

47.0 35.0 35.0 32.0 32.0
⑤ ④ 37.6

12
33.8

29.0 ①

12
33.8

40.0 36.5

All quiet.

28.5

29.0

36.0

42

3/1/61

22.0
22.0

22.5

23.5

24.0

(active)
31.6

28.0

24.0

3/1/61

0808

Phrynosoma m'calli
3/1/61

1105

4 (active)

34.0

26.2
12 (active)26.0
1 (active)

26.0

22.0
22.0

Lights on at 0800. All but #1 were completely hidden when the lights were turned on 8 min. ago.

52.0

29.0

26.0
24.5
24.037.0
36.0
32.0

G

G

32.0

32.8
12

39.5

26.0
29.024.5
24.0

All quiet.

43

3/1/61

1330

Phrynosoma m'callii

3/1/61

1400

24.5

25.0

26.0

27.0

28.0

29.0



(4)
33.6

36.8
12

48.0

42.0

30.0

26.0

27.0

25.0

All quiet. #12 standing with belly off the ground and eyes closed.

55.0

39.0

30.0

27.0

25.0

24.5



(4)
35.8

36.8
12

48.0

42.0

27.0

25.0

All

43

3/1/61

1330

Phrynosoma m'callii

3/1/61

1400

24.5

25.0

26.0

27.0

28.0

29.0

46

3/1/61

2010

Phrynosoma m'calli
3/1/61

2335-

23.0

24.0

26.0

29.0

38.5

④
34.0

3/1/61

23.0

⑥

34.0
(active)

48.0 41.5

Heat lamps have been on since 0800, overhead lights have been off since 1700.

55.0

39.0
5 ①
38.0

29.0 26.0

24.0 23.0

④
35.8⑫
23.8

48.0

41.5

Overhead lights turned on again at 2015.
All quiet at 2335.

26.0

24.5

24.0

47

3/2/61

22.0

22.0

22.0

22.0

22.0

(5)

(12)

0800

Phrynosoma m'calli

3/2/61

0820

(12)
22.5

22.0

22.0

22.0

(1)

22.0

24.5

22.0

All lights out at 2345 on 3/1/61. Lights on at 0805.

22.5

22.0

24.0

25.0

24.5

25.0

(5) emerged 0825.
(active)

1 (active)

4 (active)
25.6

25.5

25.0

26.0

22.5

24.0

48

3/2/61

0915

Phrynosoma m'calli
3/2/61

1020

24.5

26.0

28.0

32.0
31.0

32.0

4
32.01
29.25
36.8

43.0

23.5

38.0 34.0 27.0 26.0 25.0 24.0

All basking.

38.0

All basking.

31.0

30.0

(active) 12 ①
33.05
34.08
31.5

44.0

28.5

25.5

24.5

PHRYNOSOMA M'CALLI
 (TEMPERATURE TAKEN OF SOIL BESIDE LIZARD WITH)
 (SCHULTHEIS QUICK-REGISTERING THERMOMETER)
 10/2/60

°C TEMP	ON SURFACE	HEAD OUT	BENEATH SURFACE
18			
19			
20			
21		-	
22			
23	-	-	
24	-	-	
25		-	
26		-	
27		-	
28	-	-	
29	-	-	
30			
31			
32			
33			
34			
35			
36			
37			
38			
39		-	
40			
41			
42			
43			
44			
45			
46			
47			

PHRYNOSOMA M'CALLI

(7/2/60 - 11/1/60)

10/24 10/1/60

TEMP OF SURFACE TO SURFACE	ON SURFACE	HEAD OUT	BENEATH SURFACE
20			
21			
22			
23			
24			-
25		-	
26			
27			
28			
29			
30			
31			
32		-	
33			"
34		-	"
35	-	-	"
36	-	-	"
37		-	"
38		-	"
39		-	"
40	-	-	"
41		-	"
42		-	"
43		-	"
44		-	"
45		-	"
46		-	"
47	-	-	"
48	-	-	"
49			
50			



PHRYNOSOMA M'CALLI

No good

1/1/ - 3/1/

TEMP °C ON SURFACE	HEAD OUT	BENEATH SURFACE
18 //	//	
19 //	///	
20 //	/	
21 //	XXXXXX	///
22 //	XXXXXXX	XXXXXXX
23 //	XXXXXXX	XXXXXXX
24 //	///	///
25 //	/	///
26 //		///
27 //		///
28 //		///
29 //		-
30 //	//	///
31 //		XX
32 //		XXXX
33 //		XXXXXX
34 //		XXXXXX
35 //		XXXX
36 //		
37 //		
38 -		
39 -		
40 //		
41 //		
42 //		
43 //		
44 //		
45 //		///
46 //		
47 //		
48 //		
49 -		
50 -		
51 -		
52 -		
53 -		
54 -		
55 -		
56 -		
57 -		
58 -		
59 -		
60 -		

Uma spp.

Uma spp.

No. of Animals in Terrarium

	Date	No.	Date	No.	Date	No.	Date	No.	Date	No.
U. notata	3/1/61	16	3/23/61	15	3/31/61	14	4/6/61	14	4/10/61	10
U. inornata	"	16	"	16	"	16	"	15	"	18
U. scoparia	"	<u>10</u>	"	<u>9</u>	"	<u>9</u>	"	<u>9</u>	"	<u>21</u>
Total	"	42	"	40	"	39	"	38	"	49

U. notata 4/20/61 20

U. inornata " 18

U. scoparia " 21

Total " 59

1

Number of Uma Above Ground in Terrarium

Date	Time	TEMP.(°C)		NUMBER				No. Heads	Remarks
		Min.	Max.	notata	inornata	scoparia	Total		
3/1/61	1115	32.0	47.0	2	4	1	7		Lights on since 0800; overheads off at 1700
	1200	32.5	47.0	1	3	1	5		
	1330	33.0	48.0	1	3	1	5		
	1400	33.5	49.0	6	4	1	11		
	1430	34.0	49.0	5	6	4	15		
	1500	34.0	49.0	5	8	3	16		
	1530	34.0	49.0	8	8	4	20		
	1610	34.0	49.0	5	6	4	15		
	1630	34.0	49.0	6	4	4	14		
	2010	30.5	43.5	2	2	1	5		
3/2/61	2335	30.0	43.5	2	1	1	4		Lights on - 0805
	0800	22.0	22.0	4	3	2	9		
	0820	24.0	29.0	11	10	9	30		
3/6/61	1015	31.0	45.0	11	7	5	23		Lights on - 0820
	0815	22.0	22.0	0	2	0	2		
3/9/61	1325	32.5	48.0	1	5	2	8	1	
3/10/61	0800	22.0	22.0	4	4	1	9	7	Lights on - 0805 Just fed
	0813	23.0	28.0	9	10	8	27		
	0825	24.5	31.0	12	13	9	34		
	1155	33.5	48.0	1	1	1	3	5	
	1640	33.5	49.0	7	5	2	14		
3/14/61	1235	32.5	47.0	0	2	1	3		
3/15/61	1300	34.0	48.5	3	0	1	4	1	
3/23/61	0815	22.0	22.0	4	0	1	5	19	Lights on - 0815 Fed - 0910
	0820	22.5	23.5	10	8	4	22	2	
	0900	29.0	33.0	8	9	6	23	3	
	0930	30.0	37.5	7	7	5	19	1	
	1000	31.5	41.0	4	7	3	14	1	
	1130	34.0	45.0	4	1	2	7	2	

2.

Date	Time	TEMP. (°C)		NUMBER					No. Heads	Remarks
		Min.	Max.	notata	inornata	scoparia	Total			
3/23/61	1200	24.0	41.0	4	2	1	7	0		
"	1230	25.0	41.5	3	1	2	6	0		
"	1425	28.0	48.0	5	4	1	9	2		
3/24/61	0835	21.0	28.0	15	11	7	33	0		Lights on - 0830.
"	1410	31.5	47.5	6	5	7	18	0		
3/30/61	0800	22.0	22.0	6	3	4	13	7		Lights on - 0800.
"	0830	22.5	23.5	14	7	7	28	3		Fed at 0815.
"	0920	31.0	38.0	8	7	4	19	1		
"	1005	33.0	42.5	4	4	2	10	1		
"	1100	34.0	45.0	3	4	2	9	2		
"	1130	34.0	45.5	3	3	2	8	2		
"	1200	34.0	46.0	3	2	0	5	1		
"	1230	34.0	46.5	3	2	0	5	2		
"	1300	34.0	46.5	3	3	0	6	0		
"	1330	34.0	47.0	3	4	1	8	0		
"	1400	34.5	47.0	3	4	1	8	1		
"	1430	34.5	47.0	4	6	2	12	1		
"	1500	35.0	47.0	7	8	5	20	0		
"	1530	35.0	47.0	7	9	3	19	1		
"	1400	35.0	47.0	7	6	4	17	0		
"	1430	35.0	47.5	4	5	3	12	0		
"	1500	35.0	47.5	5	3	2	10	2		
"	2015	25.0	25.5	0	1	0	1	0		Lights off - 1700. Overhead lights on - 2015. (No heat lamps on)
"	2130	24.0	24.5	0	1	0	1	0		
"	2345	23.5	24.0	0	1	0	1	1		
3/31/61	0810	22.5	22.5	5	4	1	10	10		overheads only - 0810.
"	0815	22.5	22.5	9	11	5	25	1		Heat lamps on - 0820.
"	0835	29.0	29.5	9	12	8	29	0		Fed at 0845.
"	0900	29.0	33.5	9	8	7	24	0		
"	0925	30.5	37.5	7	7	8	22	0		

Date	Time	TEMP. (°C.)		NUMBER				No. Heads	Remarks
		Min.	Max.	notata	inornata	scoparia	Total		
3/31/61	1115	33.0	44.5	3	3	4	10	1	
	" 1135	33.5	45.0	2	3	2	7	1	
	" 1200	33.5	45.0	1	2	3	6	1	All quiet & basking.
	" 1230	34.0	46.0	1	1	2	4	3	" "
	" 1300	34.0	46.0	1	1	2	4	3	" "
	" 1330	34.0	46.0	3	2	2	7	0	" "
	" 1400	34.0	46.5	4	3	2	9	0	several moving about.
	" 1435	34.5	47.0	4	6	3	13	1	most are active.
	" 1500	34.5	47.0	5	6	4	15	0	" " "
	" 1530	34.5	47.0	6	6	6	18	1	" " "
4/5/61	1600	34.5	47.0	7	6	3	16	0	several "
	" 1630	35.0	47.0	9	2	3	14	1	" "
	" 1700	35.0	47.0	6	5	1	12	0	" "
	1300	33.0	47.0	1	1	1	3	2	none active
	" 1415	33.5	47.5	3	5	3	11	1	several active
	" 1430	34.0	48.0	3	5	2	10	1	" "
	" 1500	34.0	48.0	3	6	5	14	0	" "
	" 1530	34.0	48.0	8	5	4	17	0	" "
	" 1600	34.0	48.5	4	6	3	14	0	" "
	" 1650	34.5	48.5	5	6	3	14	2	" "
4/6/61	" 1700	34.5	49.0	4	6	2	12	1	" "
	0810	21.5	22.0	2	4	2	8	10	lights on - 0810 none
	" 0815	22.0	23.0	9	11	4	24	3	several ..
	" 0830	28.0	28.0	12	13	6	31	0	" "
	" 0900	28.0	34.0	11	6	4	21	1	" "
	" 1010	30.5	42.0	4	4	0	8	1	" "
	" 1030	31.0	43.0	3	5	2	10	3	" "
	" 1135	32.5	46.0	2	4	0	6	4	none ..
	" 1200	33.0	47.0	2	4	1	7	2	" "
	" 1230	33.0	47.0	4	3	0	7	2	" "

4.

Date	Time	TEMP.(°C.)	NUMBER					No. Heads	Remarks
			Min.	Max.	notata	inornata	scoparia		
4/6/61	1300	33.5	47.5	2	2	0	4	3	2 active
	1330	34.0	47.5	5	5	2	12	1	several ..
	1400	34.0	47.5	4	6	4	14	0	" ..
	1430	34.0	49.0	5	6	5	16	2	" ..
	1500	34.0	49.0	7	5	2	14	2	" ..
	1530	34.0	49.0	6	7	2	15	1	" ..
	1600	34.5	49.5	9	7	3	18	3	" ..
	1630	34.5	49.5	10	7	3	20	0	" ..
	1700	34.5	49.5	9	6	3	18	0	" ..
	1945	33.5	49.0	6	1	2	9	0	overhead lights off - 1830 none active heat lamps on since 0810.
4/7/61	2220	25.0	27.0	0	asleep on surface	0	1	1	" off - 1955. overheads on since 1945.
	0810	22.0	23.0	3		1	2	6	Lights on - 0810
	0815	23.0	26.0	8	7	4	19	5	Many active
	0818	23.0	26.5	10	9	5	24	4	" ..
	0820	24.0	28.5	11	10	7	28	2	" ..
	0850	29.0	36.0	11	6	7	24	1	" ..
	0920	30.0	40.0	9	7	5	21	2	" ..
	1010	32.0	44.0	7	3	3	13	1	several ..
	1110	34.0	47.0	5	3	3	11	2	" ..
	1130	34.0	48.0	3	2	3	8	2	none ..
4/13/61	1200	35.0	48.0	3	1	0	4	3	" ..
	1230	35.0	49.0	4	1	1	6	1	" ..
	1455	36.0	50.5	5	5	3	13	2	some ..
	0810	22.0	23.0	3	2	2	7	5	none ACTIVE.
	0820	23.0	28.0	9	8	7	24	0	several ACTIVE.
	1500	35.0	47.0	3	8	8	19	2	" ..
4/18/61	0810	21.5	21.5	2	4	3	9	7	Lights on - 0810
4/20/61	0850	28.0	36.0	10	9	12	31	6	Lights on - 0805
4/21/61	0815	22.0	22.5	5	2	6	13	9	Lights on - 0815
"	1110	32.0	46.0	4	1	4	9	3	

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